Patent Claims

1. Method for manufacturing components, preferably of a gas turbine, in particular an aircraft engine, by powder injection molding, whereby in powder injection molding, first a metal powder is mixed with at least one binder to form a homogeneous mass, then at least one molded body is fabricated from the homogeneous mass by injection molding and whereby the molded body or each molded body is then subjected to a debinding process and whereby the molded body or each molded body is compacted and/or shrunk to at least one component having the desired geometric properties by sintering, **characterized in that** multiple molded articles are joined together by a diffusion process during sintering to manufacture a component.

2. Method according to Claim 1, **characterized in that** the molded articles to be joined together are brought into surface contact at least during sintering at sections of the molded articles that are to be joined together.

3. Method according to Claim 2, **characterized in that** the molded articles that are to be joined together are brought into form-fitting surface contact in the sections that are to be joined together.

4. Method according to Claim 2 or 3, **characterized in that** the molded articles to be joined together are brought into surface contact with one another during sintering and during presintering and preferably during the debinding process.

5. Method according to any one or more of Claims 1 through 4, **characterized in that** a pressure is applied during sintering to the molded articles that are to be joined together.

6. Method according to Claim 5, **characterized in that** the pressure during sintering and during the diffusion process is applied to the molded articles to be joined together.

7. Method according to any one or more of Claims 1 through 6, **characterized in that** a coating is applied to at least one of the sections of the molded article that are to be joined together to support the diffusion process.

8. Method according to Claim 7, **characterized in that** the coating or each coating is applied as a film or as slip layer.

9. Method according to any one or more of Claims 1 through 8, **characterized in that** if the molded articles that are to be joined together have different shrinkage properties during sintering, then the molded article having the greater shrinkage is shrunk onto the molded article having the lesser shrinkage.

10. Method according to any one or more of Claims 1 through 9, **characterized in that** it is used to manufacture blades or blade segments of a gas turbine, in particular to manufacture guide vanes, guide vane segments, rotor blades or rotor blade segments of an aircraft engine or for the manufacture of integrally bladed rotors.